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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/993,567	11/27/2001	Chin-Wen Chou	CHOU3056/EM	7440

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EXAMINER

LIU, MING HUN

ART UNIT	PAPER NUMBER
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2697

DATE MAILED: 09/12/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/993,567

Applicant(s)

CHOU

Examiner

Ming-Hun Liu

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☒ Claim(s) 7-8 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_ 6) ☐ Other: \_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 7 and 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 7 and 8 recite the limitation "the second depress spots" on lines 2 and 4 respectively. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the

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reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 1, 9 and 10 are rejected under 35 U.S.C. 102(e) as being unpatentable by US Patent 6,344,618 to Sato et al

In reference to claim 1, Sato teaches a directional switch, comprising a base block having a housing section (figure 12, item 84) which has four ends and a center disposed with a plurality of contact terminals (figure 12, items 33 and 85) and a common contact terminal in various directions for generating different circuit signals (figure 3, item 34), and an elastic member located above the common contact terminal (figure 12, item 45) a control unit located in the housing section including a conductive member located above the elastic member (figure 12, item 82), a depressing block located above the conductive member and an axle rod passing through the depressing block (figure 12, items 81 and 83), the conductive member having pressing spots and conducting section matching the contact terminals and common contact terminal (figure 12) and a lid encasing the control unit and coupling with the base block (item 32), and having a center opening to allow the axle rod passing through (item 32b) wherein the axle rod is movable in a selected direction by force to drive the depressing block depressing the conductive member such that the pressing spots and conducting section are moved downwards to connect one contact terminal and the common contact terminal for outputting a directional signal thereby to function as a directional switch of a small size (figures 8-10).

In reference to claim 9, it can be seen from figure 8 that the housing section has a holding trough for holding the elastic member.

In reference to claim 10, it can be seen from figure 10 that the axle rod has a fasten trough (item 48A) for coupling with a direction control element (item 48) of a mobile phone (column 1, line 11).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2 and 5-8 and are rejected under 35 U.S.C. 103(a) as being unpatentable over Sato.

Referring to claim 2, Sato discloses an invention that closely resembles the one being claimed however he does not teach that the depressing block should have an axle opening to allow the axle rod to pass through and a retain recess to engage with a retain flange formed on the axle rod. There is no disclosed criticality as to why the axle and depressing block must be separate entities. As Sato exemplifies on column 10, lines 56-59 and figure 7, the axle and depressing block element can be separated in different sections for the purpose of increasing the simplicity of manufacturing. It is well known in the art, and demonstrated by Sato, the axel and depressing block combination can clearly be manufactured as disjoint elements. It would have been obvious to one skilled in the art to create an axel and a depressing block with matching

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recesses if manufacturing the separate elements would have simplified the manufacturing and assembling process.

In reference to claim 5, Sato's invention resembles the one being claimed, but Sato's invention does not incorporate the distinct sections of the depressing block, namely the lining pad between the depressing block and the elastic member. Sato chose to manufacture the depressing block as a single piece unit and not as a combination of several subunits. One skilled in the art could have easily modified this discrepancy between the two embodiments by breaking down Sato's single element into several sub elements. Separating the depressing block into sub elements could increase the ease and cost of manufacturing.

As to the remaining portion of the claim, there is no disclosed criticality as to why the lining pad must having four ends each having a strut and a center which has an indented section, the conductive member having an operation opening for the indented section to pass through. The importance of the claim lies in the fact that the two distinct elements must be able to be attached to one another in a fashion where the distinct elements do not move in respect to each other in order to function as if it were a single element. The method of attachment is a design criterion that can be easily adjusted by one skilled in the art. It would have been obvious to one skilled in the art to add struts and indent sections to the components in order to assist with the fitting and stability between the separate components.

In reference to claim 6, Sato discloses a directional switch that resembles the one being claimed, however the depressing block and lid do not have respectively an operation section and an operation trough located on an inner lateral side matching with each other. Naturally, it would have been obvious to one skilled in the art to realize that these components should be

manufactured so that the individual component fit well together. It would have been obvious to add corresponding troughs to the lid and depressing block to better facilitate the construction and movement of the device.

In reference to claim 7, as discussed above in the rejection of claim 5, Sato does not teach separation of the depressing block into distinct sub elements. The motivation to do so is obvious and was clearly outlined above. As for the limitation where the depressing block is to have second depress spots corresponding to the pressing spots, it would have been obvious to one skilled in the art to add these second depress spots that correspond to the pressing spots if the depressing block and conducting member were to have been separate elements. As seen in the Sato's prior art references, adding matching depressing blocks is a practice common to the art and can be easily done by adding imprints to existing components. Incorporating matching depress spots would have facilitated the combination of the separate elements and ensure proper fit after assembly.

In reference to claim 8, there is no disclosed criticality as to why the depressing block has reinforced sections located on the top surface thereof extending from the axle opening to the second depress spots. Structural reinforcements corrections are commonly made in the art on areas of a device where engineers believe require additional support. It would have been obvious to one skilled in the art to add reinforced sections on the axle to the second depressing spots so that the force utilized on the axel can be concentrated onto the depressing spots.

7. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sato in view of US Patent 6,344,619 to Yamasaki et al.

In reference to claim 3, Sato discloses a directional switch that resembles the one being claimed but never describes the feature where the base block and the lid have respectively a latch trough and a latch section engageable with each other. Yamasaki, in an invention that is nearly identical to Sato's invention, clearly shows such a feature on figure 11 of his disclosure. Figure 11 clearly shows a base block and lid having corresponding latch elements in the switch device. Such a latch system could have been easily implemented to Sato's invention by removing a hole in the lid and adding a corresponding hook to the base. It would have been obvious to one skilled in the art to incorporate such a lock system to Sato's invention so that the components within the device can be securely fastened.

In reference to claim 4, Sato discloses a directional switch that resembles the one being claimed but never describes a base block and the lid have respectively an anchor trough and an anchor section engageable with each other. Nonetheless it is well known in the art and as demonstrated by Yamasaki, that complementary components found on the base and lid of an encasing are extremely common to ensure proper alignment. Such anchoring sections could have been easily incorporated to Sato's invention as an indent could have been added to the base and a corresponding tab could have been added to the lid of the device. It would have been obvious to one skilled in the art to add anchoring components to improve the fit between the separate components.

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.



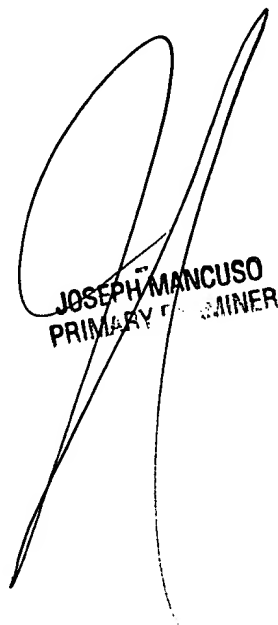
US Patent 5,889,507 to Engle et al: Examples of struts and depression in the separate elements of the device.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ming-Hun Liu whose telephone number is 703-305-8488. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Mancuso can be reached on 703-305-3885. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4750.

Ming-Hun Liu



JOSEPH MANCUSO  
PRIMARY EXAMINER